CLAIMS

1. Use of an estrogen receptor β (ERβ) modulator for the manufacture of a medicament for the prevention and/or treatment of hormone dependant cancers and other proliferative disorders.

2. Use as in claim 1, wherein the ERβ modulator either antagonises or agonises ERβ.

3. Use as in claim 1, wherein the ERβ modulator is an ERβ agonist.

4. Use of 7-hydroxylated steroids and/or enzymes capable of catalysing the production of a 7-hydroxylated steroid for the manufacture of a medicament for the prevention and/or treatment of hormone dependant cancers and other proliferative disorders.

5. Use as in claim 4, wherein the 7-hydroxylated steroids are 7α-hydroxylated steroids and/or 7β-hydroxylated steroids.

6. Use as in claim 5, wherein the steroids are selected from the group consisting of;

i) 7α-hydroxy-DHEA (7DH),

ii) 7α-hydroxy-pregnenolone,

iii) 7α-hydroxy-β-estradiol,

iv) 7α,3β,17β-androstenetriol,

v) 7α,3β,17β-androstanetriol,

vi) 7α-hydroxycholesterol,

vii) 7α-25-hydroxycholesterol,

viii) 7α-24-hydroxycholesterol,

ix) 7α-27-hydroxycholesterol and

x) other 7α-di-hydroxy and 7α-multi-hydroxylated forms of cholesterol.

7. Use as in any preceding claim wherein the medicament is administered in association with a pharmaceutically acceptable carrier or diluent.

8. Use as in claims 1-4, wherein the medicament is directly or locally administered to the prostate and/or breast.

9. Use as in claims 1-4, wherein the hormone dependant cancer is prostate cancer or breast cancer.

10. Use as in claims 1-4, wherein the proliferative disorder is a disorder of the prostate or breast.

11. Use as in claim 10, wherein the disorder of the prostate is a disorder of prostate development or prostate ageing.

12. Use as in claim 10, wherein the disorder of the prostate is benign prostatic hyperplasia (BHP) and/or prostatitis.

13. Use as in claim 4, wherein the enzyme that produces 7-hydroxylated steroids is oxysterol 7α-hydroxylase (CYP7B).

14. Use as in claim 4, wherein the enzyme capable of catalysing the production of a 7-hydroxylated steroid is modified.

15. Use as in claim 14, wherein the enzyme capable of catalysing the production of a 7-hydroxylated steroid is modified to improve substrate affinity.

16. Use as in claim 4, wherein the enzyme capable of catalysing the production of a 7-hydroxylated steroid is recombinantly or synthetically produced.

17. Use as in claim 4, wherein the 7-hydroxylated steroid is provided by contacting an enzyme capable of catalysing the production of said 7-hydroxylated steroid with a suitable substrate.

18. Use as in claim 4, wherein the 7-hydroxylated steroid is provided by contacting a cell comprising an enzyme capable of catalysing the production of said 7-hydroxylated steroid with a suitable substrate.

19. Use as in claim 18, wherein the cell is transformed with a vector containing a gene encoding an enzyme capable of catalysing the production of said 7-hydroxylated steroid.

20. Use as in claims 17 and 18, wherein the suitable substrate is a compound capable of being converted to a 7-hydroxylated steroid by an enzyme capable of catalysing the production of a 7-hydroxylated steroid.

21. Use as in claim 20, wherein the suitable substrate is selected from the group consisting of;

i) dehydroepiandosterone (DHEA),

ii) 3beta-androstanediol,

iii) 3β-androstenediol; and

iv) β-estradiol

22. Use of a nucleic acid encoding an enzyme capable of catalysing the production of a 7-hydroxylated steroid for the manufacture of a medicament for the treatment of hormone dependant cancers and other proliferative disorders.

23. Use as in claim 22, wherein the nucleic acid is contained within a nucleic acid vector.

24. Use as in claim 22, wherein the medicament is administered in association with a pharmaceutically acceptable carrier.

25. Use as in claim 22, wherein the enzyme capable of catalysing the production of a 7-hydroxylated steroid is oxysterol 7α-hydroxylase (CYP7B).

26. A method of detecting either a level of a 7-hydroxylated steroid or a level of an enzyme capable of catalysing the production of a 7-hydroxylated steroid or detecting a mutation in a sequence encoding an enzyme capable of catalysing the production of a 7-hydroxylated steroid, wherein the method comprises the steps of;

d) providing a sample from a patient;

e) detecting a level of 7-hydroxylated steroid or an enzyme capable of catalysing the production of a 7-hydroxylated steroid or ascertaining the sequence of the nucleic acid encoding said enzyme; and

f) comparing said detected level or the sequence of said nucleic acid with a normal level or sequence.

27: The method according to claim 26 for use in detecting the efficacy of a drug used to treat hormone dependant cancers and other proliferative disorders.

28: The method of claim 26 for use in ascertaining the stage of a tumour.

29. The method of claim 26, wherein the patient is either a healthy person, a person suspected of having, predisposed to developing, or suffering from a hormone dependant cancers or other proliferative disorder.

30. The method of claim 26, wherein the sample is a biopsy.

31. The method of claim 30, wherein the biopsy is a prostate biopsy or breast tissue biopsy.

32. The method of claim 26, wherein the sample is a body fluid.

33. The method of claim 32, wherein the sample is selected from the group consisting of

i) blood;

ii) urine; and/or

iii) semen.

34. The method of claim 26, wherein the normal sequence encodes a functional enzyme capable of catalysing the production of a 7-hydroxylated steroid.

35. The method of claim 26, wherein the normal sequence is a sequence that does not comprise a mutation which effects the expression of said functional enzyme.

36. The method of claim 26, wherein the level of 7-hydroxylated steroid or an enzyme capable of catalysing the production of a 7-hydroxylated steroid is detected by means of immunological detection techniques.

37. The method of claim 36, wherein the level of 7-hydroxylated steroid or an enzyme capable of catalysing the production of a 7-hydroxylated steroid is detected by ELISA.

38. The method of claim 26, wherein the level of an enzyme capable of catalysing the production of a 7-hydroxylated steroid is detected by Western blot.

39. The method of claim 26, wherein the level of an enzyme capable of catalysing the production of a 7-hydroxylated steroid is detected by PCR and associated techniques, for example RT-PCR, quantitative PCR and quantitative RT-PCR.

40. The method of claim 26, wherein the level of an enzyme capable of catalysing the production of a 7-hydroxylated steroid is detected by spectrophotometric and enzymatic reactions

41. A method of detecting a 7-hydroxylated steroid or an enzyme capable of catalysing the production of a 7-hydroxylated steroid in a patient, comprising administering to a patient an amount of a molecule capable of interacting with a 7-hydroxylated steroid or an enzyme capable of catalysing the production of a 7-hydroxylated steroid and detecting any complex comprising said molecule and said 7-hydroxylated steroid or enzyme capable of catalysing the production of a 7-hydroxylated steroid.

42. The method of claim 41, wherein the molecule capable of interacting with a 7-hydroxylated steroid or an enzyme capable of catalysing the production of a 7-hydroxylated steroid is an antibody.

43. The method of claims 41 and 42, wherein the molecule or antibody further comprises a radiolabel.

44. The method of claims 41 and 42, wherein the molecule or antibody further comprises a radioactive isotope.

45. A method for identifying agents capable of modulating the activity of an enzyme capable of catalysing the production of a 7-hydroxylated steroid, wherein said assay comprises the steps of:

c) contacting an agent with a prostate cell comprising an enzyme capable of catalysing the production of a 7-hydroxylated steroid, in the presence of a substrate capable of being converted to a 7-hydroxylated steroid by said enzyme; and

d) detecting an amount of substrate converted to a 7-hydroxylated steroid by said enzyme and comparing said level to a normal level.

46. Use of agents identified by the method of claim 45 for the treatment and/or prevention of hormone dependant cancers and other proliferative disorders.